**Rogue Failed Star Is One of Smallest Ever Seen**

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Astronomers found roughly a dozen stars qualified as brown dwarfs, Brown dwarfs are bigger than planets but too small to trigger nuclear fusion reaction to become a star. "Its mass is comparable to those of giant planets, yet it doesn't circle a star," said Aleks Scholz. NGC 1333 is about 1,000 light-years from Earth in the Perseus constellation. NGC 1333 has an odd surplus of failed stars, harboring half as many brown dwarfs as normal stars, researchers said. The team used the Subaru Telescope to take extremely deep images of the two star clusters at both optical and infrared wavelengths. Brown dwarfs have a deep red color. The results of this could help astronomers better understand how failed stars form. The findings suggest that these stars could be formed the same way as Jupiter which is roughly the same size. Looking at this young constellation of stars could help us better understand how our planets formed.

Astronomers have discovered more than two dozen previously unknown failed stars, including one that ranks among the puniest of its kind, new research finds.

The newfound objects are [brown dwarfs](http://www.space.com/11204-coldest-star-discovered-brown-dwarf.html), strange bodies that are larger than planets but too small to trigger the internal nuclear fusion reactions required to become full-fledged stars. Astronomers discovered the objects in two young star clusters using Japan's Subaru Telescope in Hawaii and the Very Large Telescope in Chile.

One of the brown dwarfs is just six times the mass of Jupiter, making it "one of the puniest free-floating objects known," researchers said in a statement.

"Its mass is comparable to those of giant planets, yet it doesn't circle a star," said Aleks Scholz of the Dublin Institute for Advanced Studies in Ireland. Scholz is lead author of one upcoming paper reporting the team's findings. "How it formed is a mystery."